



216  
m.m.  
4/16/03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

UEYAMA et. al.

: GROUP ART UNIT :1616

Serial No: 09/832,897

Filed: April 12, 2001

: PRIMARY EXAMINER:

Mr. Michael G. Hartley

**DECLARATION UNDER 37 CFR 1.132**

Honorable Commissioner of  
Patents & Trademarks  
Washington, D.C. 20231

Sir:

I, Kenichi UEYAMA, a Japanese citizen and an employee of kao  
Corporation, declare:

That I am one of the co-inventors of the above-identified application and  
familiar with the prosecution history of said application;

That I have read and understand the official action having the mailing date

of December 26, 2002 issued against the above-identified application;

That I had the following experiments conducted at my direction and under my supervision, and the results are true and correct to the best of my knowledge

## **EXPERIMENTS**

### **I. Object**

The Experiments were conducted in order to make it clear that shampooed hair in which excess water has been squeezed out must have a water content in excess of 30% by weight, and that such shampooed hair does not meet “dry hair” referred to in the present invention.

### **II. Measurement of Water Content**

#### **(1) Preparation of hair bundle (tress)**

Hairs of Japanese adult females which had not been subjected to any chemical treatment such as a perm or bleach were bundled by a nylon thread weighing 0.003g thereby preparing a 12 cm long hair bundle weighing 3.31 g. The nylon thread bundled only one free end of the hair in the longitudinal direction of the bundled hair.

Completely the same manner was repeated to prepare two hair bundles.

## (2) Measurement of Dry Weight

One of the hair bundles thus prepared was used to obtain the dry weight (W1) of the hair bundle in accordance with the following procedures:

- a) First, the hair bundle was subjected to running water at 39°C in a flow rate of 700 mL/min for a minute thereby allowing the bundle thoroughly wet. The hair bundle was combed with fingers during this procedure, whereby every hair could be wet.
- b) 3 g of commercially available shampoo (tradename “Essential Damage Care” available from Kao Corporation) was applied to the hair bundle and rubbed between fingers for 30 seconds to sufficiently foam.
- c) The hair bundle thus shampooed was thoroughly rinsed by running water at 39°C in a flow rate of 700 mL/min for a minute.
- d) The rinsed hair bundle was lightly squeezed with fingers to the extent that water does not drop, and then the hair was dried with a hairdryer of 1200 watt for 3 minutes with a heat setting of high. While applying the warm air, the hairs were combed by fingers so as to sufficiently dry them.

e) The hair bundle thus air-dried was kept in a desiccator (130 mmHg, 25°C ) under the reduced pressure and allowed to stand for 24 hours for completely dry it.

f) The hair bundle was taken out of the desiccator, and the weight was immediately measured on a balance. The obtained weight (W1) of the hair bundle was 3.3 g.

(3) Measurement of Moisture Content of Hair Bundle which Squeezed lightly after Shampoo

The other one of the hair bundles prepared in (1) above was used to obtain the moisture content of the hair bundle which was squeezed lightly after shampoo in accordance with the following manner:

- a) The same procedures a) to c) in (2) Measurement of Dry Weight above was repeated to shampoo the hair bundle.
- b) The thus shampooed hair bundle was squeezed with fingers to the extent that water does not drop.
- c) The weight of the hair bundle (W2) was measured on a balance. It was 6.4

g. The moisture content (R1) of the hair bundle which was lightly squeezed after shampoo was measured from (W2) obtained here and (W1) obtained in (2) above by the following equation:

$$\text{Moisture content (R1) (\%)} = [(W2 - W1) / W2] \times 100$$

The moisture content (R1) was 94 %.

(4) Measurement of Moisture Content of Hair Bundle which was Squeezed lightly after Shampoo and then Dried with Towel

The hair bundle, after its weight (W2) had been obtained in the procedure c) of (3) above, was squeezed out with a dry towel and pressed 5 times by hands.

The resultant hair bundle was taken out and the weight (W3) was measured. It was 5.2 g. The moisture content (R2) of the hair bundle which was squeezed lightly after shampoo and further dried with a towel was measured from (W3) obtained here and the dry weight (W2) obtained in (2) above by the following equation:

$$\text{Moisture content (R2) (\%)} = [(W3 - W1) / W3] \times 100$$

The moisture content (R2) was 57.6 %.

### III. Conclusion

The moisture content (R1) of the hair bundle which was lightly squeezed after shampoo exceeded 90% by weight, and even the moisture content (R2) of the hair bundle which was lightly squeezed after shampoo and further dried with a towel exceeded 50% by weight. Thus, it was clearly seen that in either case, the moisture content largely exceeded 30%.

Therefore, shampooed hair in which excess water has been squeezed out must have a water content in excess of 30 % by weight and that such shampooed hair does not meet "dry hair" referred to in the present invention.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001, of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: February 28, 2003

A handwritten signature in cursive script, reading "Kenichi Ueyama". The signature is written in black ink and is positioned above a horizontal line.

Kenichi UYAMA